



IFWO

## RAW SEQUENCE LISTING

DATE: 08/04/2004

PATENT APPLICATION: US/10/781,564

TIME: 09:32:37

Input Set : A:\1361036US1.txt

Output Set: N:\CRF4\08042004\J781564.raw

4 <110> APPLICANT: Quigley, James P.  
 5 Hooper, John D.  
 6 Testa, Jacqueline E.  
 7 The Scripps Research Institute  
 9 <120> TITLE OF INVENTION: Methods for Diagnosing Cancer and Decreasing Metastasis by  
 Cancer Cells  
 12 <130> FILE REFERENCE: 1361.036US1  
 14 <140> CURRENT APPLICATION NUMBER: 10/781,564  
 15 <141> CURRENT FILING DATE: 2004-02-18  
 17 <150> PRIOR APPLICATION NUMBER: US 60/448,828  
 18 <151> PRIOR FILING DATE: 2003-02-19  
 20 <160> NUMBER OF SEQ ID NOS: 10  
 22 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 24 <210> SEQ ID NO: 1  
 25 <211> LENGTH: 836  
 26 <212> TYPE: PRT  
 27 <213> ORGANISM: Homo sapiens  
 29 <400> SEQUENCE: 1  
 30 Met Ala Gly Leu Asn Cys Gly Val Ser Ile Ala Leu Leu Gly Val Leu  
 31 1 5 10 15  
 32 Leu Leu Gly Ala Ala Arg Leu Pro Arg Gly Ala Glu Ala Phe Glu Ile  
 33 20 25 30  
 34 Ala Leu Pro Arg Glu Ser Asn Ile Thr Val Leu Ile Lys Leu Gly Thr  
 35 35 40 45  
 36 Pro Thr Leu Leu Ala Lys Pro Cys Tyr Ile Val Ile Ser Lys Arg His  
 37 50 55 60  
 38 Ile Thr Met Leu Ser Ile Lys Ser Gly Glu Arg Ile Val Phe Thr Phe  
 39 65 70 75 80  
 40 Ser Cys Gln Ser Pro Glu Asn His Phe Val Ile Glu Ile Gln Lys Asn  
 41 85 90 95  
 42 Ile Asp Cys Met Ser Gly Pro Cys Pro Phe Gly Glu Val Gln Leu Gln  
 43 100 105 110  
 44 Pro Ser Thr Ser Leu Leu Pro Thr Leu Asn Arg Thr Phe Ile Trp Asp  
 45 115 120 125  
 46 Val Lys Ala His Lys Ser Ile Gly Leu Glu Leu Gln Phe Ser Ile Pro  
 47 130 135 140  
 48 Arg Leu Arg Gln Ile Gly Pro Gly Glu Ser Cys Pro Asp Gly Val Thr  
 49 145 150 155 160  
 50 His Ser Ile Ser Gly Arg Ile Asp Ala Thr Val Val Arg Ile Gly Thr  
 51 165 170 175  
 52 Phe Cys Ser Asn Gly Thr Val Ser Arg Ile Lys Met Gln Glu Gly Val  
 53 180 185 190  
 54 Lys Met Ala Leu His Leu Pro Trp Phe His Pro Arg Asn Val Ser Gly  
 55 195 200 205

ENTERED

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```

56 Phe Ser Ile Ala Asn Arg Ser Ser Ile Lys Arg Leu Cys Ile Ile Glu
57      210                      215                      220
58 Ser Val Phe Glu Gly Glu Gly Ser Ala Thr Leu Met Ser Ala Asn Tyr
59 225                      230                      235                      240
60 Pro Glu Gly Phe Pro Glu Asp Glu Leu Met Thr Trp Gln Phe Val Val
61                      245                      250                      255
62 Pro Ala His Leu Arg Ala Ser Val Ser Phe Leu Asn Phe Asn Leu Ser
63                      260                      265                      270
65 Asn Cys Glu Arg Lys Glu Glu Arg Val Glu Tyr Tyr Ile Pro Gly Ser
66                      275                      280                      285
67 Thr Thr Asn Pro Glu Val Phe Lys Leu Glu Asp Lys Gln Pro Gly Asn
68      290                      295                      300
69 Met Ala Gly Asn Phe Asn Leu Ser Leu Gln Gly Cys Asp Gln Asp Ala
70 305                      310                      315                      320
71 Gln Ser Pro Gly Ile Leu Arg Leu Gln Phe Gln Val Leu Val Gln His
72                      325                      330                      335
73 Pro Gln Asn Glu Ser Asn Lys Ile Tyr Val Val Asp Leu Ser Asn Glu
74                      340                      345                      350
75 Arg Ala Met Ser Leu Thr Ile Glu Pro Arg Pro Val Lys Gln Ser Arg
76                      355                      360                      365
77 Lys Phe Val Pro Gly Cys Phe Val Cys Leu Glu Ser Arg Thr Cys Ser
78      370                      375                      380
79 Ser Asn Leu Thr Leu Thr Ser Gly Ser Lys His Lys Ile Ser Phe Leu
80 385                      390                      395                      400
81 Cys Asp Asp Leu Thr Arg Leu Trp Met Asn Val Glu Lys Thr Ile Ser
82                      405                      410                      415
83 Cys Thr Asp His Arg Tyr Cys Gln Arg Lys Ser Tyr Ser Leu Gln Val
84                      420                      425                      430
85 Pro Ser Asp Ile Leu His Leu Pro Val Glu Leu His Asp Phe Ser Trp
86                      435                      440                      445
87 Lys Leu Leu Val Pro Lys Asp Arg Leu Ser Leu Val Leu Val Pro Ala
88                      450                      455                      460
89 Gln Lys Leu Gln Gln His Thr His Glu Lys Pro Cys Asn Thr Ser Phe
90 465                      470                      475                      480
91 Ser Tyr Leu Val Ala Ser Ala Ile Pro Ser Gln Asp Leu Tyr Phe Gly
92                      485                      490                      495
93 Ser Phe Cys Pro Gly Gly Ser Ile Lys Gln Ile Gln Val Lys Gln Asn
94                      500                      505                      510
95 Ile Ser Val Thr Leu Arg Thr Phe Ala Pro Ser Phe Arg Gln Glu Ala
96                      515                      520                      525
97 Ser Arg Gln Gly Leu Thr Val Ser Phe Ile Pro Tyr Phe Lys Glu Glu
98      530                      535                      540
99 Gly Val Phe Thr Val Thr Pro Asp Thr Lys Ser Lys Val Tyr Leu Arg
100 545                      550                      555                      560
101 Thr Pro Asn Trp Asp Arg Gly Leu Pro Ser Leu Thr Ser Val Ser Trp
102                      565                      570                      575
103 Asn Ile Ser Val Pro Arg Asp Gln Val Ala Cys Leu Thr Phe Phe Lys
104                      580                      585                      590
105 Glu Arg Ser Gly Val Val Cys Gln Thr Gly Arg Ala Phe Met Ile Ile

```

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```

106          595          600          605
107 Gln Glu Gln Arg Thr Arg Ala Glu Glu Ile Phe Ser Leu Asp Glu Asp
108          610          615          620
109 Val Leu Pro Lys Pro Ser Phe His His His Ser Phe Trp Val Asn Ile
110 625          630          635          640
111 Ser Asn Cys Ser Pro Thr Ser Gly Lys Gln Leu Asp Leu Leu Phe Ser
112          645          650          655
113 Val Thr Leu Thr Pro Arg Thr Val Asp Leu Thr Val Ile Leu Ile Ala
114          660          665          670
115 Ala Val Gly Gly Gly Val Leu Leu Ser Ala Leu Gly Leu Ile Ile
116          675          680          685
117 Cys Cys Val Lys Lys Lys Lys Lys Thr Asn Lys Gly Pro Ala Val
118          690          695          700
119 Gly Ile Tyr Asn Gly Asn Ile Asn Thr Glu Met Pro Arg Gln Pro Lys
120 705          710          715          720
121 Lys Phe Gln Lys Gly Arg Lys Asp Asn Asp Ser His Val Tyr Ala Val
122          725          730          735
123 Ile Glu Asp Thr Met Val Tyr Gly His Leu Leu Gln Asp Ser Ser Gly
124          740          745          750
125 Ser Phe Leu Gln Pro Glu Val Asp Thr Tyr Arg Pro Phe Gln Gly Thr
126          755          760          765
127 Met Gly Val Cys Pro Pro Ser Pro Pro Thr Ile Cys Ser Arg Ala Pro
128          770          775          780
129 Thr Ala Lys Leu Ala Thr Glu Glu Pro Pro Pro Arg Ser Pro Pro Glu
130 785          790          795          800
131 Ser Glu Ser Glu Pro Tyr Thr Phe Ser His Pro Asn Asn Gly Asp Val
132          805          810          815
133 Ser Ser Lys Asp Thr Asp Ile Pro Leu Leu Ser Thr Gln Glu Pro Met
134          820          825          830
135 Glu Pro Ala Glu
136          835
138 <210> SEQ ID NO: 2
139 <211> LENGTH: 18
140 <212> TYPE: DNA
141 <213> ORGANISM: Homo sapiens
143 <400> SEQUENCE: 2
144 tccccaccgt cgttttcc
146 <210> SEQ ID NO: 3
147 <211> LENGTH: 21
148 <212> TYPE: DNA
149 <213> ORGANISM: Homo sapiens
151 <400> SEQUENCE: 3
152 ggtaggaac acggacgggt g
154 <210> SEQ ID NO: 4
155 <211> LENGTH: 19
156 <212> TYPE: PRT
157 <213> ORGANISM: Homo sapiens
159 <220> FEATURE:
160 <221> NAME/KEY: SITE

```

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Input Set : A:\1361036US1.txt

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```

161 <222> LOCATION: 15
162 <223> OTHER INFORMATION: Xaa = Glycine or Isoleucine
164 <220> FEATURE:
165 <221> NAME/KEY: SITE
166 <222> LOCATION: 17
167 <223> OTHER INFORMATION: Xaa = any amino acid
169 <400> SEQUENCE: 4
W--> 170 Phe Glu Ile Ala Leu Pro Arg Glu Ser Gln Ile Thr Val Leu Xaa Lys
      171 1 5 10 15
W--> 172 Xaa Gly Thr
      175 <210> SEQ ID NO: 5
      176 <211> LENGTH: 19
      177 <212> TYPE: PRT
      178 <213> ORGANISM: Homo sapiens
      180 <220> FEATURE:
      181 <221> NAME/KEY: SITE
      182 <222> LOCATION: 17
      183 <223> OTHER INFORMATION: Xaa = any amino acid
      185 <400> SEQUENCE: 5
      186 Phe Glu Ile Ala Leu Pro Arg Glu Ser Asn Ile Thr Val Leu Ile Lys
      187 1 5 10 15
W--> 188 Xaa Gly Thr
      191 <210> SEQ ID NO: 6
      192 <211> LENGTH: 13
      193 <212> TYPE: PRT
      194 <213> ORGANISM: Homo sapiens
      196 <220> FEATURE:
      197 <221> NAME/KEY: SITE
      198 <222> LOCATION: (1)...(4)
      199 <223> OTHER INFORMATION: Xaa = any amino acid
      201 <400> SEQUENCE: 6
W--> 202 Xaa Xaa Xaa Xaa Ile Pro Gly Ser Thr Thr Asn Pro Glu
      203 1 5 10
      205 <210> SEQ ID NO: 7
      206 <211> LENGTH: 13
      207 <212> TYPE: PRT
      208 <213> ORGANISM: Homo sapiens
      210 <400> SEQUENCE: 7
      211 Val Glu Tyr Tyr Ile Pro Gly Ser Thr Thr Asn Pro Glu
      212 1 5 10
      214 <210> SEQ ID NO: 8
      215 <211> LENGTH: 12
      216 <212> TYPE: PRT
      217 <213> ORGANISM: Homo sapiens
      219 <220> FEATURE:
      220 <221> NAME/KEY: SITE
      221 <222> LOCATION: 1, 3
      222 <223> OTHER INFORMATION: Xaa = any amino acid
      224 <400> SEQUENCE: 8

```

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Input Set : A:\1361036US1.txt

Output Set: N:\CRF4\08042004\J781564.raw

W--> 225 Xaa Tyr Xaa Leu Gln Val Pro Ser Asp Ile Leu His  
226 1 5 10  
228 <210> SEQ ID NO: 9  
229 <211> LENGTH: 12  
230 <212> TYPE: PRT  
231 <213> ORGANISM: Homo sapiens  
233 <400> SEQUENCE: 9  
234 Ser Tyr Ser Leu Gln Val Pro Ser Asp Ile Leu His  
235 1 5 10  
237 <210> SEQ ID NO: 10  
238 <211> LENGTH: 8  
239 <212> TYPE: PRT  
240 <213> ORGANISM: Artificial Sequence  
242 <220> FEATURE:  
243 <223> OTHER INFORMATION: A synthetic FLAG epitope  
245 <400> SEQUENCE: 10  
246 Asp Tyr Lys Asp Asp Asp Asp Lys  
247 1 5

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/781,564

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. 15,17  
Seq#:5; Xaa Pos. 17  
Seq#:6; Xaa Pos. 1,2,3,4  
Seq#:8; Xaa Pos. 1,3

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/781,564

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Input Set : A:\1361036US1.txt

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L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:16  
L:188 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:16  
L:202 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0  
L:225 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0